ASSESSMENT OF EUROCLEAR FINLAND OY

Based on the ESCB-CESR Recommendations for Securities Settlement Systems issued in May 2009

August 2013

1 Introduction

1.1 Assessor and objective

Euroclear Finland Oy (EFi) has been assessed by Suomen Pankki (the Bank of Finland, BoF) in co-operation with Finanssivalvonta (FIN-FSA). The objective of the assessment is to determine to what extent EFi meets the criteria set in the ESCB-CESR Recommendations for Securities Settlement Systems (RSSS) in view of migration to T2S platform.¹ FIN-FSA has been responsible for assessing standard 1 and providing description of its work regarding the requirements of standard 18. The assessment has also benefited from FIN-FSA expertise.

1.2 Scope of the assessment

The assessment covers the operating environment and the OM system of EFi as is, 2012.

The current legacy infrastructure operated by EFi will be replaced by BaNCS system using a step-by-step approach for the adaptation to T2S. The BoF will launch an assessment of the new system in the beginning of 2014.

In the ESCB-CESR standards, there are 19 RSSSs. Recommendation 9 (CSD risk controls to address participants' failures to settle) is not applicable as EFi does not extend intraday credit and does not operate a net settlement system. The BoF and FIN-FSA also jointly agreed that a general description but no rating for authorities' performance is provided in the context of recommendation 18 (Regulation, supervision and oversight).

1.3 Institutional and market structure

The Euroclear Group acquired NCSD Holding AB, which owned 100 % of the shares of Suomen Arvopaperikeskus Oy and VPC AB, the Finnish and Swedish CSDs, in November 2008. Shortly after the acquisition, the companies were renamed Euroclear Finland Oy and Euroclear Sweden AB (hereinafter ES). Both EFi and ES are now fully owned subsidiaries of Euroclear S.A./NV.

EFi currently operates two separate settlement and registrar systems (OM and RM). However, Euroclear SA has recently agreed to replace EFi's current legacy infrastructure with a new system as a key part of the Finnish T2S Programme. EFi will implement the BaNCS package solution with enhanced service levels in three releases.

¹ Governing Council of the ECB has adopted five eligibility criteria for T2S. According to Criterion 2, CSDs in T2S have been positively assessed by the competent authorities against ESCB/CESR recommendations.

1.4 Regulatory regime of EFi

EFi has licenses granted by the Ministry of Finance to act both as a Central Securities Depository and as a Clearing Organisation. As a licensed entity and an operator of a securities settlement system, EFi falls under the supervision of the FIN-FSA and the oversight of the BoF. The Finnish legal framework consisting of Securities Markets Act, Act on Book-Entry System and Book-Entry accounts together with the self-regulation of EFi (Rules of EFi) provides a clear and effective regulatory regime for the operations of EFi.

1.5 Information and methodology used for the assessment

The assessment has been carried out according to the assessment methodology provided by ESCB-CESR Recommendations for securities settlement systems. The answers to the key questions were first prepared by EFi and further analysis was carried out by the authorities. The assessment is based on but not limited to the information and documents received from EFi in its responses dated 20 and 24 January 2012 to the questionnaire enumerated in the assessment methodology of ESCB-CESR Recommendations, as published in 2009. The main sources of information used were the following:

- Publicly available documents issued by ESA and EFi on their official websites;
- Legal and regulatory European and national frameworks relevant for EFi and ESA activities, supervision and oversight;
- The rules of EFi;
- The statistical information reported by EFi within its regulatory framework;
- The information collected and exchanged by the authorities based on ongoing supervision and oversight, as part of their co-operative arrangement.

The report has been finalised in August 2013.

EFi has had the opportunity to up-date and provide further information for the assessment during spring 2013. In addition, the BoF has discussed the conclusions of recommendations with EFi in one physical meeting and EFi has had an opportunity to comment issues during the process. However, the final conclusions of the report are only those of the BoF.

The ESCB - CESR Recommendations for SSSs

l Legal risk

The legal framework applicable to an SSS's operation is highly important for its reliability and predictability. Legal risks may cause one party to a trade to suffer losses because laws or regulations do not support the rules of the securities settlement system or the property rights and other interests held through the settlement system.

1. Legal framework

Securities settlement systems should have a well founded, clear and transparent legal basis in the relevant jurisdictions.

ll Pre-settlement risk

Pre-settlement risk refers to the risk that an outstanding transaction for completion at a future date will not settle because one of the counterparties fails to perform on the contract or agreement during the life cycle of the transaction before settlement. The resulting exposure is the cost of replacing the original transaction at current market prices. This risk can be mitigated by trade confirmation mechanisms, shorter settlement cycles, the use of a central counterparty or the possibility to lend securities.

2. Trade confirmation

Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T + 0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T + 0, but no later than T + 1.

3. Settlement cycles

Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T + 3. The benefits and costs of a settlement cycle shorter than T + 3 should be evaluated.

4. Central counterparties (CCPs)

The benefits and costs of a CCP should be evaluated. Where such a mechanism is introduced, the CCP should rigorously control the risks it assumes.

5. Securities lending

Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.

III Settlement risk

Settlement risk is a general term used to designate the risk that settlement in a SSS will not take place as expected, e.g. because a party will default on one or more settlement obligations to its counterparties or to a settlement agent.

6. Central securities depositories (CSDs)

Securities should be immobilised or dematerialised and transferred by book entry in CSDs to the greatest extent possible.

7. Delivery versus payment (DVP)

CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

8. Timing of settlement finality

Final settlement should occur no later than the end of the settlement day. Intraday or real-time finality should be provided where necessary to reduce risks.

9. CSD risk controls to address participants' failures to settle

CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.

10. Cash settlement assets

Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.

IV Operational risk

Operational risk is the risk of a human error, or of a breakdown or deficiency of the hardware, software or communications systems that are crucial to the settlement process. It covers both operational reliability and business continuity issues.

11. Operational reliability

Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and backup facilities should be established to allow for timely recovery of operations and completion of the settlement process.

V Custody risk

Custody risk is the risk of loss of securities held in custody occasioned by the insolvency, negligence or fraudulent action of the custodian or of a subcustodian.

12. Protection of customers' securities

Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.

VI Other issues

13. Governance

Governance arrangements for CSDs and CCPs should be designed to fulfil public interest requirements and to promote the objectives of owners and users.

14. Access

CSDs and CCPs should have objective and publicly disclosed criteria for participation that permit fair and open access.

15. Efficiency

While maintaining safe and secure operations, securities settlement systems should be costeffective in meeting the requirements of users.

16. Communication procedures and standards

Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.

17. Transparency

CSDs and CCPs should provide market participants with sufficient information for them to identify and evaluate accurately the risks and costs associated with using the CSD or CCP services.

18. Regulation, supervision and oversight

Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.

19. Risks in cross-border links

CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlements.

2 Assessment of observance

2.1 Overall conclusions

EFi has been assessed by the BoF to fulfill the requirements set in the ESCB-CESR recommendations for SSSs and thus meets the T2S elibility criterion 2 set by the ECB Governing Council.

The BoF emphasizes the importance of continuous monitoring of the IT program, harmonization and standardization and the functioning of the consultation process with the market. This is underlined by the fact that EFi as well as the Finnish post-trading community is taking a giant leap forward by joining T2S.

Please refer to the table below for observance at the level of individual recommendations (section 2.2) and the assessment follow-up (section 3).

2.2 Main findings

Recommendation	Observance
R1 Legal framework	Observed
R2 Trade confirmation and settlement	Observed
matching	
R3 Settlement cycles and operating	Partly observed
times	
R4 Central counterparties	Observed
R5 Securities lending	Broadly observed
R6 Central securities depositories	Observed
R7 Delivery versus payment (DvP)	Partly observed
R8 Timing of settlement finality	Observed
R9 CSD risk controls to address	Not applicable
participants' failures to settle	
R10 Cash settlement assets	Observed
R11Operational risk	Observed
R12 Protection of customers' securities	Observed
R13 Governance	Broadly observed
R14 Access	Observed
R15 Efficiency	Observed
R16 Communication procedures,	Observed
messaging standards and straight-	
through processing (STP)	
R17 Transparency	Observed
R18 Regulation, supervision and	Not assessed
oversight	
R19 Risks in cross-system links or	Observed
interoperable systems	

Four RSSSs were assessed as broadly or partly observed, which means there remain issues that would need further improvement to obtain full observance with recommendations. These relate to the following areas:

- RSSS 3 Settlement cycles and operating times partly observed. ESCB-CESR recommendations state that settlement fails should not be a significant source of added risk or risks from fails should be effectively mitigated. At the moment, more than 5 % of EFi's settlement transactions (by value) fail to settle on the contractual date. EFi and the CCP have, hoewever, recently taken corrective action by implementing a new sanction regime and by actively raising participants' awareness of the settlement failures. The forthcoming EU Regulation on Central Securities Depositories (CSDR) will also contribute to the settlement discipline in the EU.
- RSSS 5 Securities lending broadly observed. Bilateral securities lending facilities exist but no data is available on them, making it hard to judge the level of observance. No particular steps are being taken or planned by the authorities to address the issue or implement any measures regarding the Finnish securities lending facilities. The developments are monitored in combination with the above.
- RSSS 7 Delivery versus payment (DvP) partly observed. There are no fully satisfactory statistics available for determining the proportion of DVP to FOP-transfers, in particular which of the FOP-transactions are settled in cash outside the CSD and which are genuine transfers free of payment. As an indication, in terms of settlement-volume, DVP-transfers between participants represent about 91% of all transfers, 67% in terms of the number of securities transferred and 65% in terms of value. However, these FOP-transfers include also those which have no cash settlement, such as gifts and heritages. The ESCB-CESR Recommendations require the SSS to settle a very high proportion of securities transactions between direct participants and the CSD (by value) on a DvP basis. BoF emphasises that EFi put a lot of effort but has not been able to evaluate the required value estimate with certainty. As an assessment conclusion it can be stated that more of the trades (by value) than revealed by the statistics are actually settled on a DvP basis.
- RSSS 13 Governance broadly observed. Governance structure is in place in line with the regulatory requirements and it functions well. However, previous stakeholder enquiries have pointed out some room for improvement. The adequacy of the planned enhancements and the functioning of communication and consultation process is to be monitored.

4 Recommendations for Securities Settlement Systems (RSSS) which are fully observed

13 RSSSs were assessed as fully observed. EFi operates an operationally reliable SSS with adequate legal and regulatory framework. The SSS achieves the efficiency and transparency targets set by the recommendations and has policies and procedures to manage operational risks. RSSS 18 has not been assessed and thus no specific degree to which this recommendation is observed is provided.

The outcome per recommendation was the following:

• RSSS 1 Legal framework. The operations of a CSD, the operator of the SSS and the operations of the SSS are clearly stated in legislation and the rules and other relevant documentation of EFi. The rules of EFi and changes thereto have to be approved by the Ministry of Finance which has to obtain a statement from both the FIN-FSA and the BoF. Finnish law is applicable to all national activities of the SSS or within the SSS operated by EFi.

Being a direct holding system, the system provides a high level of legal certainty on both the proprietary and collateral rights registered in the system. As a general rule the bankruptcy of a participant has no effect on the rights of account or collateral holders.

The settlement system has been designated under the SFD.

All legislation and EFi's rules are available to the public easily via internet and rules are enforceable also in events of bankruptcy.

There are several cross-border participants from EU- or EEA-countries in the system. Participants must comply with the rules of EFi which clearly state that the applicable law is Finnish law. External legal opinions are also required in certain cases before accepting remote participants.

- RSSS 2 Trade confirmation and settlement matching. All trades, if not confirmed already in the trading system, are confirmed on T+0 and also matched no later than the day before the specified settlement date.
- RSSS 4 Central counterparties. Finnish equities have since 2009 been cleared by EMCF, which is a CCP established and regulated in the Netherlands and has been positively assessed against ESCB-CESR recommendations for CCPs by the relevant Dutch authorities.
- RSSS 6 Central securities depositories. EFi operates a robust direct holding system in which through daily reconciliations both the integrity of the issue and the interest of investors are safeguarded to a high degree. The possibility of EFi to take any investment or credit risk is strictly restricted by legislation.

• RSSS 8 Timing of settlement finality. The rules of HEXClear clearly define the moment of finality which is supported by relevant legislation. Intraday finality in HEXClear is provided by multiple-batch processing with so called optimisations every ten minutes between 10:00 – 17:30.

Early settlement during the day is promoted by appropriate measures that require participants to bring required liquidity into the system before the first optimisation at 10:00 in the morning. Failure to provide the required liquidity will result in a sanction.

Matched unsettled transactions cannot be unilaterally cancelled or amended and retransfer of provisional transfer of securities is not possible.

- RSSS 10 Cash settlement assets. There are no impediments to the use of central bank money in settlement of payment obligations associated with securities transactions. The cash payment in both Finnish securities settlement systems is settled in central bank money (sc. modified integrated central bank money model).
- RSSS 11 Operational risk. EFi has clearly defined operational risk policies and processes and contingency and disaster recovery plans are in place. There are also procedures providing for the preservation of all transaction data and the integrity of messages is ensured. All data is mirrored in real time between the two data centres.
- RSSS 12 Protection of customers' securities. The Finnish legal framework provides for the protection and segregation of customer securities as well as accounting procedures in the context of the centralised book-entry system maintained by EFi. Institutions providing custody services are licensed institutions, subject to banking and investment firm legislation as well as the FIN-FSA regulation.
- RSSS 14 Access. The access criteria for the system are objective, clear and where feasible, publicly disclosed.
- RSSS 15 Efficiency. Based on regular oversight and supervision of EFi the BoF and FIN-FSA have comfort that EFi operates it's business in a manner that satisfies efficiency recommendation and that ensures safe and secure operations. This is supported also by the market satisfaction. Board level documents and annual reports providing insight in the total expenses versus total income are disclosed to the FIN-FSA and annual reports and financial statements are also available at the Companies Register.

- RSSS 16 Communication procedures, messaging standards and straight-through processing (STP). EFi applies international communication procedures and standards where relevant proprietary messaging is only used when necessary and is currently progressing towards implementing STP in a manner required in the context of T2S.
- RSSS 17 Transparency. EFi discloses sufficient information to participants. Annual reports and financial statements are available at the Finnish Companies Register.
- RSSS 18 Regulation, supervision and oversight. EFi is subject to regulation, supervision and oversight.
- RSSS 19 Risks in cross-system links or interoperable systems. There are no DvP links and the overall volumes of processed FoP link transactions are very low. EFi has terminated the CSD link contracts apart from the one with Euroclear Sweden for Swedish securities. The links with Euroclear France and Clearstream Banking Frankfurt will be closed in the current format on 2 September 2013.